# Cardiac Arrest: Post- Resuscitation Care

**History**
- Respiratory arrest
- Cardiac arrest

**Signs/Symptoms**
- Return of pulse

**Differential**
- Continue to address specific differentials associated with the original dysrhythmia

**Repeat Primary Assessment**

**B** — **Optimize Ventilation and Oxygenation**
- Maintain SpO2 ≥ 93%
- Maintain i-gel/ETT airway, ***if indicated***
- Resp Rate 6 – 12 per min (EtCO2 35-45)
- DO NOT HYPERVENTILATE

**P** IV Procedure | **P** IO Procedure

**B** 12 Lead ECG Procedure

**P** Cardiac Monitor

Monitor Vital Signs / Reassess

Hypotension Systolic BP < 90 — YES →
- **P** **Normal Saline Bolus 500 mL IV / IO** May repeat as needed if lungs clear **Maximum 2 L**
- **P** **Dopamine 10-20 mcg/kg/min IV/IO** *Titrate pressor to SBP ≥ 90*

NO ↓

STEMI on 12 Lead ECG — ↔ Notify STEMI Receiving Center of 12 Lead EKG Finding

NO ↓

Symptomatic Bradycardia — YES → Cardiac: Bradycardia Protocol

NO ↓

ROSC with Antiarrhythmic given — YES → Arrhythmias are common and usually self limiting after ROSC. They may not need further meds or drips. If Arrhythmia persists, follow Rhythm Appropriate Protocol

NO ↓

**P** Consider Sedation if needed — Use only with i-gel or ETT in place

**Midazolam 2.5-5 mg IV/IO** May repeat x 1 in 5 minutes if needed (Hold for BP < 100 mmHg)

**Contact Medical Control for questions or additional guidance**

Adult Medical Section Protocols- Cardiac

# Cardiac Arrest: Post-Resuscitation Care



**Post ROSC Cardiac Arrest Checklist**

- ☐ FINGER on pulse; maintain for 5 minutes. DO NOT MOVE the patient during this time!
- ☐ ASSESS $CO_2$ (should be >20 with good waveform)
- ☐ Continuous visualization of cardiac monitor rhythm
- ☐ Check $O_2$ supply and Pulse Ox, Maintain $SpO_2 \geq 93\%$
- ☐ Do not try to obtain a "normal" $EtCO_2$ by increasing respiratory rate
- ☐ Obtain 12 lead EKG; if STEMI evident, make STEMI notification to the hospital
- ☐ Assess for & TREAT bradycardias, HR < 60 bpm
- ☐ Obtain Blood Pressure -- Pressor agent indicated for SBP < 90
- ☐ Evaluate for post-resuscitation airway placement (e.g. i-gel or ETT), if needed.
- ☐ When patient is moved, perform CONTINUOUS PULSE CHECK and continuous monitoring of cardiac rhythm
- ☐ Have Mask available for BVM in case i-gel or ETT fails
- ☐ Once in ambulance, confirm pulse, breath sounds, $SaO_2$, $EtCO_2$, and cardiac rhythm
- ☐ Appropriate personnel present in the back of the ambulance for transport

**Pearls**

- **Continue to search for potential cause of cardiac arrest during post-resuscitation care.**
- **Hyperventilation is a significant cause of hypotension and recurrence of cardiac arrest in the post resuscitation phase and should be avoided at all costs.**
- **Initial End tidal $CO_2$ may be elevated immediately post-resuscitation but will usually normalize. While goal is 35 – 45 mm Hg, avoid hyperventilation.**
- Most patients immediately post resuscitation will require ventilatory assistance.
- The condition of post-resuscitation patients fluctuates rapidly and continuously, they require close monitoring. Appropriate post-resuscitation management may require consultation with medical control.
- Common causes of post-resuscitation hypotension include hyperventilation, hypovolemia, pneumothorax, and medication reaction to ALS drugs.
- Titrate Dopamine to maintain SBP ≥ 90. Ensure adequate fluid resuscitation is ongoing.
- **Patients with a STEMI or suspicion of a STEMI must be routed to a STEMI Receiving Center!**